



## **NATIONAL SCIENCE FOUNDATION**

### **Notice of Permit Applications Received Under the Antarctic Conservation Act of 1978**

**AGENCY:** National Science Foundation.

**ACTION:** Notice of Permit Applications Received.

**SUMMARY:** The National Science Foundation (NSF) is required to publish a notice of permit applications received to conduct activities regulated under the Antarctic Conservation Act of 1978. NSF has published regulations under the Antarctic Conservation Act in the Code of Federal Regulations. This is the required notice of permit applications received.

**DATES:** Interested parties are invited to submit written data, comments, or views with respect to this permit application by **[INSERT 30 DAYS FROM DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

This application may be inspected by interested parties at the Permit Office, address below.

**ADDRESSES:** Comments should be addressed to Permit Office, Office of Polar Programs, National Science Foundation, 2415 Eisenhower Avenue, Alexandria, Virginia 22314.

**FOR FURTHER INFORMATION CONTACT:** Nature McGinn, ACA Permit Officer, at the above address, 703-292-8030, or [ACAPERMIT@NSF.GOV](mailto:ACAPERMIT@NSF.GOV).

**SUPPLEMENTARY INFORMATION:** The National Science Foundation, as directed by the Antarctic Conservation Act of 1978 (Public Law 95-541, 45 CFR 670), as amended by the Antarctic Science, Tourism and Conservation Act of 1996, has developed regulations for the establishment of a permit system for various activities in Antarctica and designation of certain animals and certain geographic areas a requiring special protection. The regulations establish such a permit system to designate Antarctic Specially Protected Areas.

#### **APPLICATION DETAILS:**

1. Applicant Permit Application: 2019-009  
Zicheng Yu, Department of Earth and Environmental Science, Lehigh University, 1 West Packer Avenue, Bethlehem, PA 18015.

Activity for Which Permit is Requested

Enter Antarctic Specially Protected Area (ASPAs). The applicant requests access to ASPA 113, Litchfield Island, to collect small samples of moss and peat and carry out field measurements. Moss samples would primarily consist of two species, *Polytrichum strictum* and *Chorisodontium aciphyllum*, and would be collected by hand. Cores of peat moss up to 100 cm deep would be collected by box corer (3 inches by 4 inches) or permafrost corer (2-inch diameter). A limited number of samples would be collected from within the ASPA and from other nearby locations within the Palmer Basin ASMA. No equipment or instrumentation would be installed in ASPA 113. To minimize the potential for unintentional transfer of soils or organisms, the application and agents would clean sample collection tools, as well as clothing and shoes, between visits to different field sites. The samples would be processed at the home institution. Data gathered from this research will advance the understanding of peat moss banks to climate change during the last 3000 years.

Location

ASPAs 113, Litchfield Island.

Dates of Permitted Activities

December 1, 2018 – April 30, 2019.

2. Applicant

Permit Application: 2019-010

Mark Salvatore, Department of Physics and Astronomy, Northern Arizona University, NAU Box 6010, Flagstaff, AZ 86011-6010.

Activity for Which Permit is Requested

Enter Antarctic Specially Protected Area (ASPAs); Take; Harmful interference. The applicant requests access to ASPA 131, Canada Glacier, to collect samples of mosses and microbial mats and carry out spectral measurements and imagery collection. The applicant and agents would enter ASPA 131 up to three times over the course of a single season to collect samples and measurements from up to three discrete plots (20 m by 20 m) of the Canada Stream area. The

number of samples collected within each plot during each visit would vary based on the degree of heterogeneity of the distribution of mosses or microbial mats. The applicant proposes to collect no more than 66 total samples of moss and microbial mats. Samples would be small (up to approximately 10 mL) and collected using a #13 cork-borer or, when sampling from rocks or uneven surfaces, a 1 cm<sup>2</sup> area of mat would be brushed into a sample container. While traversing the ASPA area on foot between sampling plots, the applicant and agents would use trails, when available, and would avoid extremely sensitive areas such as drainages, stream channels, and soft soils to the maximum extent possible. The applicant and agents would also conduct similar, but more extensive sampling of microbial mats in other stream systems within the Lake Fryxell Basin in the McMurdo Dry Valleys Antarctic Specially Managed Area (ASMA 2). The samples, ground-based spectral measurements, and ground-based imagery would be compared to spectral signatures in satellite imagery with the ultimate goal of using remote sensing to study key ecosystem characteristics.

Location

ASPA 131, Canada Glacier; ASMA 2, McMurdo Dry Valleys.

Dates of Permitted Activities

December 1, 2018 – February 15, 2019.

**Suzanne H. Plimpton,**

*Reports Clearance Officer,*

*National Science Foundation.*

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